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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,477	07/26/2001	Peter Kofink	3826 701	5126

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EXAMINER

COHEN, AMY R

ART UNIT PAPER NUMBER

2859

DATE MAILED: 07/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,477

Applicant(s)

KOFINK ET AL.

Examiner

Amy R Cohen

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Steering Column Module.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 51 and 77. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to because it is unclear as to where reference number 34 is directed as stated in the specification, reference number 34 includes 35 and 37, however, this is not shown in the figures and, in Fig. 2 reference number 43 should be directed to 6 Hall elements, however, number 43 is not directed to any Hall elements. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, more than one rotatable casings and code discs of claim 3, the blinker and blinker returning position of claim 15 and first and second evaluation electronics of claim 14 must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Art Unit: 2859

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 13 and 14 recite the limitation "at least one of said stationary transmission" in lines 3 and 2, respectively. However, only one stationary transmission is claimed in the independent claim 1. There is insufficient antecedent basis for this limitation in the claim and in the specification.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "one of said code disc and said rotatable case component" in lines 1 and 2 and "in an other of said rotatable case components" in lines 5 and 6. Claim 3 is dependent on claims 1 and 2 where only one code disc and one rotatable case component are claimed. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 is rejected based on its dependency on rejected claim 3.

8. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, "--one projection extending in an axial direction which engages in at least one associated recess, extending in the radial direction, in an other of said rotatable case component and said disc code--" is unclear as to what the applicants means by axial and radial directions, on a disc these could be the same or different and;

Claim 4, "pin which is eccentrically disposed and extends in an axial direction, and wherein at least one associated recess is a slot extending in a radial direction" is unclear again as to what is meant by axial and radial and it is unclear what the applicant means by eccentrically disposed.

9. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, line 5, "in an other" makes the claim language confusing since it is unclear as to whether applicant is claiming another case component or another direction. Appropriate correction is required.

10. Claims 13 and 14 recite the limitation "at least one of said stationary transmission" in lines 3 and 2, respectively. However, only one stationary transmission is claimed in the independent claim 1. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2859

11. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 states a "--stationary signal transmission case component and a rotatable signal transmission case--," however, the specification refers to a "--signal transmission case--" with a "--rotary part--". The claim language is directed to separate stationary and rotatable cases while the specification is directed to a signal transmission case with a rotatable component.

Claims 2-15 are rejected based on their dependency on rejected claim 1.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

13. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Sano (U. S. Patent No. 6,272,912).

Art Unit: 2859

Sano teaches a steering column module (1) for vehicles having a steering wheel, the module comprising: a stationary signal transmission case (16) component; a rotatable signal transmission case component (25) mounted in said stationary component (18) for secure mutual rotation with the steering wheel; a steering angle sensor (16) for measuring a steering angle of the steering wheel; and a rotatable code disc (22) borne by said steering angle sensor for secure mutual rotation with the steering wheel.

Sano teaches the steering column module wherein said code disc cooperates with said rotatable case component for secure mutual rotation therewith (Col 13, lines 1-25).

Sano teaches the steering column module wherein one of said code disc and said rotatable case component comprises at least one projection extending in an axial direction which engages in at least one associated recess, extending in the radial direction, in another of said rotatable case component and said code disc (Col 10, lines 35-48 and Col 6, lines 41-53).

Sano teaches the steering column module wherein said at least one projection is a pin which is eccentrically disposed and extends in an axial direction, and wherein said at least one associated recess is a slot extending in a radial direction (Fig. 1).

Sano teaches the steering column module wherein said steering angle sensor comprises a carrier (20) within which said code disc is radially secured and rotatably disposed.

Sano teaches the steering column module wherein said steering angle sensor comprises a casing (19) within which said code disc is radially secured and rotatably disposed.

Sano teaches the steering column module wherein said steering angle sensor comprises a bearing piece having a bearing ring (19 and Fig. 1) in which said code disc is disposed.

Sano teaches the steering column module wherein said steering angle sensor comprises a carrier, bearing a scanning device (23) for scanning said code disc.

Sano teaches the steering column module wherein said code disc has rotary angle encoding (22a) disposed on an end face thereof.

Sano teaches the steering column module wherein said code disc has holes (22a) constituting rotary angle encoding and wherein rotary angle encoding is disposed on an outer surface thereof.

Sano teaches the steering column module further comprising at least one steering column switch and, wherein a first steering column switch cooperates in a modular fashion with at least one of said stationary transmission case component, said steering angle sensor, said rotatable transmission case, a second steering column switch, and a third steering column switch (Col 12, line 60-Col 13, line25).

Sano teaches the steering column module wherein at least one of said stationary transmission case component and said rotatable transmission case component has a first evaluation electronics (23), and wherein said steering angle sensor has a second evaluation electronics (7) disposed in close proximity to said first evaluation electronics.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2859

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sano in view of Miyase et al. (U. S. Patent No. 6,025,565).

Sano discloses the steering column module as described above in paragraph 12.

Sano also discloses the steering angle sensor unit for detecting information on rotation of a steering wheel, and for electrically connecting electric devices respectively provided in the steering wheel and a vehicle body.

Sano does not disclose the steering column module wherein a first steering column switch actuates a blinker and has a blinker returning position which can be controlled by the steering angle sensor.

Miyase et al. discloses a steering column (39) wherein a first switch (3) actuates a blinker (Col 2, lines 66-67) and has a blinker returning position which can be controlled by said steering angle sensor (Col 2, line 66-Col 3, line 4 and Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the steering column of Sano to include a switch that actuates a blinker and has a blinker returning position, as taught by Miyase et al., so that the steering wheel column will control both the steering and angle sensor and a blinker to indicate the direction a car would be traveling.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okumura (U. S. Patent No. 6,341,426), Sano et al. (U. S. Patent No. 6,282,986), Zabler et al. (U. S. Patent No. 5,930,905), Kashiwagi et al. (U. S. Patent No. 4,625,411), Tranchon (U. S. Patent No. 5,218,769), Hirose et al. (U. S. Patent No. 5,088,319), Tanaka et al.

Art Unit: 2859

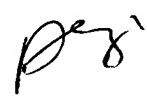
(U. S. Patent No. 4,418,348), Hedderly (U. S. Patent No. 5,606,892), Weiss et al. (U. S. Patent No. 6,069,329), and Hecht et al. (U. S. Patent No. 6,417,468) teach steering column sensors and steering column modules.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R Cohen whose telephone number is (703) 305-4972. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

ARC
July 15, 2002



Diego Gutierrez
Supervisory Examiner
Tech Center 2800